

AMENDMENTS TO THE CLAIMS

Listing Of Claims

Claims 1-62 (canceled)

63. (currently amended) A semiconductor package comprising:

a semiconductor die comprising ~~a face and~~ a bumped contact;
~~on the face;~~

an interconnect on the ~~face~~ die having a first side and an opposing second side;

the interconnect comprising:

a contact on the first side comprising a conductive layer bonded to the bumped contact;

a conductive member comprising an opening extending through the conductive layer and the interconnect from the first side to the second side and a conductive material in the opening in contact with the conductive layer; and

an external contact on the second side in electrical communication with the conductive member.

64. (currently amended) The package of claim 63 further comprising an underfill layer between ~~the first side of~~ the interconnect and ~~the face of~~ the die.

65. (currently amended) The package of claim 63 wherein the conductive member comprises a solder substantially filling the opening.
~~a metal or a conductive polymer in the opening.~~

66. (currently amended) The package of claim 63 wherein the contact includes a penetrating member configured to penetrate the bumped contact.

~~external contact comprises a ball.~~

Claims 67-89 (canceled)

90. (currently amended) A semiconductor package comprising:

a semiconductor die comprising a plurality of first contacts;

an interconnect attached to the die comprising:

a substrate having a first side, and an opposing second side, and a chip scale outline;

a plurality of second contacts on the first side bonded to the first contacts on the die;

a plurality of conductive members in the substrate in electrical communication with the second contacts, each conductive member comprising an opening ϕ with a selected diameter extending through a second contact and through the substrate from the first side to the second side, and a conductive material in the opening ϕ ; and

a plurality of third contacts on the second side in electrical communication with the conductive members.

91. (currently amended) The package of claim 90 wherein the selected diameter is from 10 μ m to 2 mils.

~~substrate comprises a semiconductor material.~~

92. (currently amended) The package of claim 90 wherein the substrate comprises a material selected from the group consisting of a ceramic material, or a glass filled resin material and a semiconductor material.

93. (previously presented) The package of claim 90 wherein the first contacts comprise bumps and the second contacts comprise recesses and conductive layers on the recesses bonded to the bumps.

94. (previously presented) The package of claim 90 wherein the third contacts comprise balls.

95. (previously presented) The package of claim 90 further comprising an underfill layer between the die and the interconnect.

96. (currently amended) A semiconductor package comprising:

an interconnect comprising a substrate having a chip scale outline, a first side and an opposing second side, a plurality of contacts on the first side, a plurality of conductive members comprising openings through the contacts and through ~~in~~ the substrate ~~extending~~ from the first side to the second side and a conductive material in the openings, and a plurality of external contacts on the second side in electrical communication with the conductive members; and

a semiconductor die ~~having a face~~ attached to the first side in electrical communication with the contacts.

97. (currently amended) The package of claim 96 further comprising an underfill layer between the ~~face~~ die and the first side.

98. (previously presented) The package of claim 96 wherein the contacts comprise bumps.

99. (previously presented) The package of claim 96 wherein the external contacts comprise balls.

100. (currently amended) The package of claim 96 wherein the substrate comprises a material selected from the group consisting of a ceramic material, a glass filled resin, and a semiconductor material.

101. (currently amended) The package of claim 96 wherein each opening has a selected diameter of from 10 μ m to 2 mils.

~~the substrate comprises a ceramic material.~~

102. (currently amended) The package of claim 96 further comprising an insulating layer in each opening.

~~wherein the substrate comprises a glass filled resin.~~